

"Instrument Makers" - an Exhibition (working title)

Building a New Space of the Imagination in the 20th Century

Exhibition Concept

"Instrument Makers" is a proposal for a large historical and contemporary art exhibition dedicated to artistic invention in the 20th century; the confrontation of the artistic revolution with the scientific and technological revolutions of our time; the invention of artistic tools and the art works that resulted from this confrontation. The project was originally proposed by Jean Gagnon at a meeting of art and technology experts in Souillac, France in June 1998, in the discussion group presided over by Don Foresta on the relationship between art and industry. The idea evolved from a collective recognition of the industrial world's underestimation of the importance of artistic practice vis-à-vis technological research and development. Thus emerged the idea for an exhibition that would attempt to illustrate the intimate links between artistic practice and the invention of technological instruments in the 20th century.

In the past forty years, several exhibitions have been organized around a similar theme, but all have remained under the general heading of "art and technology" : "The Machine As Seen at the End of the Mechanical Age", Museum of Modern Art, 1968-69, University of St. Thomas, Houston, 1969, and San Francisco Museum of Art, 1969; "Cybernetic Serendipity" in 1969 at the Institute of Contemporary Art in London; the project entitled "Art and Technology" by the Los Angeles County Museum of Art between 1967 and 1971; the numerous and diverse projects of Robert Rauschenburg and Billy Klüver with Experiments in Art and Technology between 1966 and 1977; and "Electra" at the Musée d'art moderne de la Ville de Paris in 1983-84; "Les Immatériaux" at the Centre Georges-Pompidou in Paris in 1986. More recently, in time and in spirit, is the exhibition at Ars Electronica in 1992, "Eigenwelt Der Apparate – Welt, Pioneers of Electronic Art".

After a study of the above-mentioned exhibitions, it is possible to conclude that with the exception of the Ars Electronica exhibition in 1992, neither the specificity of the instrument linked to the arts nor the instrumental relationship between artists and the realization of their work, has been examined. This relationship has clearly evolved in tandem with the scientific, technological and industrial developments that have also modeled society and culture. The approach of this exhibit will be for a more in-depth illustration of the complicated relationship between art, science, technology and industry illustrating how artists have drawn on all of these sources constituting the techno-scientific knowledge of a given culture – ours - at a given time – the 20th century.

In its investigation, "Instrument Makers" will focus on specific turning points in scientific and technological development, the domestication of electricity and the recording of the light, that originated in the 19th century, and continue to reconfigure our concept of the universe in the 20th century through current developments in electrical, electronic and digital communication

technologies. It is therefore important to show the early history of artists or artistic motivations involved in this evolution : for example, Samuel Morse, the inventor of the telegraph, was a painter, Philip Reiss invented the telephone to transmit opera and poetry; Charles Cros, poet, invented the phonograph to record poetry. This beginning bears witness to the many changes in the structure of the human sensorium brought about through artistic experimentation : time and space have become objects of artistic work; the simultaneity of signals and the interactivity of electronic media are creating a new space-time of the imagination. These communication technologies, along with the current computerization of society, represent both a social and technological environment that has the ability to modify culture, as well as the techno-scientific knowledge that serves as the base of artistic experimentation.

Description of the Exhibition

Introduction

Following the concept, the exhibition will present past and present works in the plastic arts, the performing arts through representations of various sorts as well as actual performances, interactive multimedia installations, cinema and video projections and a section on scientific models paralleling those inherent in the ensemble of artistic works. It will also show how the artists' instruments have historically underpinned the evolution of both art and technology, especially in the development of interactive networks. It will also include an extensive program of documentation and publications – print and electronic - on the subject.

The exhibition will be made up of both historical and contemporary works that have proven to have significantly broadened the field of artistic invention in the 20th century. It will examine works where the artistic process has been influenced by the use of instruments that the artists themselves created and those works which have modified our perception of time and space. The distinctive characteristic of these instruments is that they are part of a process involving a form of interactivity by which the artist transforms our way of viewing the world. The contemporary example is software or the pairing of computers with various peripherals that can be found at the base of many remarkable works that are transforming our definition of reality.

Plastic Arts

The exhibition will feature painting, sculpture and photography that historically and artistically highlight the goal of the exhibition and whose makers are artists that have marked the evolution of contemporary art : for example, "Réseaux de stoppages" by Marcel Duchamp, Man Ray's "Rayograms", pieces by Moholy-Nagy, Takis, Schöffer...

There will also be interactive multimedia installations, important in historical terms as well as in contemporary art, whose makers also marked artistic evolution; these works could be the basis for artist commissions and original creations : for example, the works of Piotr Kowalski, James Turrell, David Rokeby, Woody & Steina Vasulka, Jeffrey Shaw...

Performing Arts

Part of the exhibition will be a documentary presentation of drawings, sketches, models, photographs, musical scores, visual and sound experiments, videos and films of performing art works that demonstrate the artists' reinvention of the space of the imagination : for example, drawings by John Cage or Alwin Nikolais... This could also include statements and interviews of the artists.

In other scenic spaces in each of the cities in which the exhibition will be held, a program of theatrical, choreographic, musical and other performances will be presented. These performances can be original creations, commissions, historical or contemporary works, based on the main theme of invention that will run throughout the exhibition. This program will be subject to change depending on the location and date of the itinerant exhibition and the possibilities existing at each site.

Film & Video Projections

In a space linked to the exhibition, there will be presentations of both historical and contemporary films, videos and digital creations by artists that have marked the redefinition of our visual, sound and spatial imagination : the experimental cinema of the 1920s to today, digital and video works of art, work documenting performances, and key documentaries on art and artists : for example, films by Oskar Fischinger, Stan Brakhage, by Guy Debord and the Situationnists...

Representations of Scientific Models

There will be an exhibition of documents : sketches, diagrams and drawings, films and videos representing the century's scientific interpretation of reality through visual and audio models that share the same vision of the world proposed and constructed by the artists : a reinvention of the representation and construction of space, the creation of a concept of space-time, the awareness of the variable scale of time, the transition from mechanical thinking to quantum thinking, and interactivity as the new metaphor for reality.

Historical Involvement of Art & Invention

There will be an historical presentation of information and instruments created and developed by artists or by other inventors with artistic objectives, whose application has largely surpassed the field of art and has historically marked cultural, technical and social progress and the evolution of civilization. This part of the exhibition, described in the presentation of the concept, can serve as a general introduction.

Interactive Networks

This category will not be unique in itself, as aspects of it can be found in many other parts of the exhibition illustrating the predominance of content over instrumentalization. Historical and contemporary works have taken advantage of communication networks since the first experimentation in the field early in the century participating in its technical advancement - interactive creations and on-line performances...

The exhibition can be constructed in a way that will allow it to take advantage of its various host contexts illustrating that interactivity. It can be presented in different cities simultaneously or

successively. As an example, it could be simultaneously presented in museums in Montreal and Paris, completed by theatrical events, dance, music, conferences and debates, including interactive connected performances and events. This initial exhibition could then tour to different cities or pairs of cities with alterations to its program depending on the resources available in each subsequent site.

Artist Commissions

In addition to the exhibition of historical works that have marked this century, will be the commissioning of contemporary artists, directors, choreographers, composers, etc..., to create works of art in a setting that will allow them to experiment with instruments (digital or otherwise) in the process of creation. The artists will be working under the formal constraints of a tool that will engender productive tensions that are comparable to the way that the rules of metrical structure created constraints in the formal construction of the language of poetry.

The Notion of the Instrument

The notion of the instrument presupposes an instrumental relationship between things : for example, the relationship between a musician and his or her musical production, an immediate relationship with the sound during its actual production. The musical instrument is in this case a model for the kind of instrument being discussed in this exhibition. But the newer instrumental relationship also allows for a certain detachment from this immediacy in a non time-based but qualitatively constant relationship with the thing produced; for example, digital instruments allow for many phases of development in the process of creation before obtaining the final work.

What is interesting here is the instrumental relationship with the reproduction or recreation of our visual and audio space. These relationships have changed with the appearance of electricity, the recording of light, and the apparition of electronic and digital media. In the case of computers, there are no longer references to a medium but to an instrument involving several media; an instrument of transformation and the direct production of images and sounds. It is also worth noting that progressively the instrumental relationship between artists and the material with which they are working permits them to make use of these sounds and images as they would an object : for example, a musician can produce and directly manipulate sound (the appearance of concrete music in the 1940's, sampling and sound editing today...). Visual artists began "playing with" visual objects (for example, Woody Vasulka's "time energy objects") through analog and digital synthesizers.

Within the notion of instruments and the instrumental relationship with the art work is also the idea of improvisation and composition. Through the exploration of artists' instruments, an evaluation of the underlying utopian aspect of composition, improvisation and interactivity will also be possible.

Artistic Instruments and Languages

In exploring the instrument we must also consider two levels of the instrumental dimension :

- 1 the instrument, as an extension of the body, a prosthesis that allows for the manipulation of the product of the instrument (the sound coming out of a soloist's violin), is an intermediary of the first degree between the artist and the work.

This is the "tool" aspect of the instrument.

- 2 the instrument, as an extension into new territories through electrical and digital technologies, separated into two strata:

the first stratum originates in the instrument's manipulation of a "material" substance, and is a necessary intermediary for access to the immaterial, the conceptual, the imaginary, the representational and the symbolic.

the second stratum, based on the first, is where the process of creating the work itself occurs, a process that authorizes the public's interactivity and implication in the work.

This is the "meta-tool" aspect of the instrument.

Works function in two languages : one is a technical language that derives from mastering the instrumental dimension of the work as well as the techno-scientific developments made in the domain. The other is a symbolic language that emanates from the artistic process, from the language of the work and its relationship to culture.

Instruments to do what and to say what?

The exhibition is devoted to demonstrating the role of the artist throughout the 20th century as researcher and developer with the new technologies of creation, expression and communication through his or her personal research and need to create tools to facilitate the creative process. The artist has been and will always be an instrument maker; but instruments to do what? The "what" is to explore interactivity, to reinvent the space of perception in our society, to propose new ways of thinking or seeing the world, a new way of imagining reality... The issue is also what these artists reveal or express that necessitated the invention or the use of these instruments :

- Electricity, electronic or digital media require a rethinking of the human sensorium where the hierarchy of one sense over another finds itself renegotiated. After many centuries where vision has dominated, there has been a shift towards a sensorial ensemble where the sense of hearing and the presence of the body have been reintroduced. **The idea of presence will dominate as a question posed by artists.**
- The acceleration and dislocation generated by the new digital media of telecommunication, determine a new space and distance between people where "reality" is no longer necessary and where we deal only with digital models and simulations. Photography, film and video already complicated our relationship to "reality", but in the analog domain. "Reality" always precedes technology and the medium in question is always accountable to the natural world

in front of the lens. In the digital domain, more radical new distances are being created and not the distance that defines all culture as a second nature, but a double distance, a second distance related to both nature and culture. **This dislocation of space and time, of identities and cultures, will dominate in many of the works in this exhibition.**

- Finally, this growing distance felt by humanity in relation to nature provokes many crucial questions that we are confronted with in this digital age. What is to remain human amongst these mutations (even literally and genetically so) that we are to expect in the next century? What does our imagination become in a digital environment where this new double distance acts as a stimulant in our relationships with nature, matter, and other people? Despite all of these technological factors that are modifying our behavior, are there not always the constants in our imagination and unconscious : desires, anguish, hopes, and fears? The works in this exhibition will address these questions, archetypes and imaginations that toss culture and contemporary art back and forth between utopia and dystopia. Finally, this exhibition hopes to raise the question of freedom in this digital culture. If a part of us becomes a servo-system by abdicating certain mental or physical functions to the machine, instruments and the media, will the imagination remain a human function of freedom? **By raising these questions, this exhibition will explore the possibilities of a poetic and an aesthetics of media that will also be a "critique of the present", that is, according to Adorno and Ernst Bloch, the basic function of utopia.**

"Through their work, artists and scientists of the twentieth century have reinvented and will continue to reinvent the governing paradigm of our civilization, with the interactive network becoming our socio-cultural metaphor, replacing the mechanical universe of the Renaissance. Its geometry will be the geometry of our imagination." (Don Foresta, from a conference at the CICV in May, 1997)

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Research Phase : June 1999 to December, 2000

This first step will produce the following:

- a description of the content of the exhibition;
- the selection of the scientific and artistic advisors: research and proposals for each part of the exhibition (visual arts, cinema-video, music, theatre, dance...);
- the selection of and negotiation with interested museums and potential partners;
- the selection of art historical works (preparation of the loan agreements);
- the selection of contemporary artists (artist commissions);
- the selection of artistic events (co-productions);
- budgetary development, financial structuring, negotiations with financial sponsors and potential partners.

At the end of this stage, the specifications of the exhibition will be laid out, indicating a detailed description of the exhibition and the confirmed and potential partners, the list of artists and works, the artist commissions, and the complete budget for the exhibition.

Persons Implicated in the Research Phase :

Co-curators : Jean Gagnon and Don Foresta

Lead Consultants :

Plastic arts

Marc Partouche, Ministry of Culture, France & Jean-Pierre Nouhaud, Ecole Nationale d'Arts de Cergy, France

Dance

Elaine Rudnicki, former dancer, cultural attaché, Canadian Embassy

Music

Joel Chadabe, Director and Founder of Electronic Music Foundation, New York, USA

The Comparative history of artistic and technical invention in communications

Dan McVeigh, Founder-Director of Ocean of Know, Dover, New York, USA

Publications

Roger Malina, Editor-in-Chief of Leonardo Magazine, San Francisco, USA

Film and video

Gerald O'Grady, founder of Media Study, Univ. of Buffalo, presently Harvard University & the ZKM.

Scientific models

To be confirmed